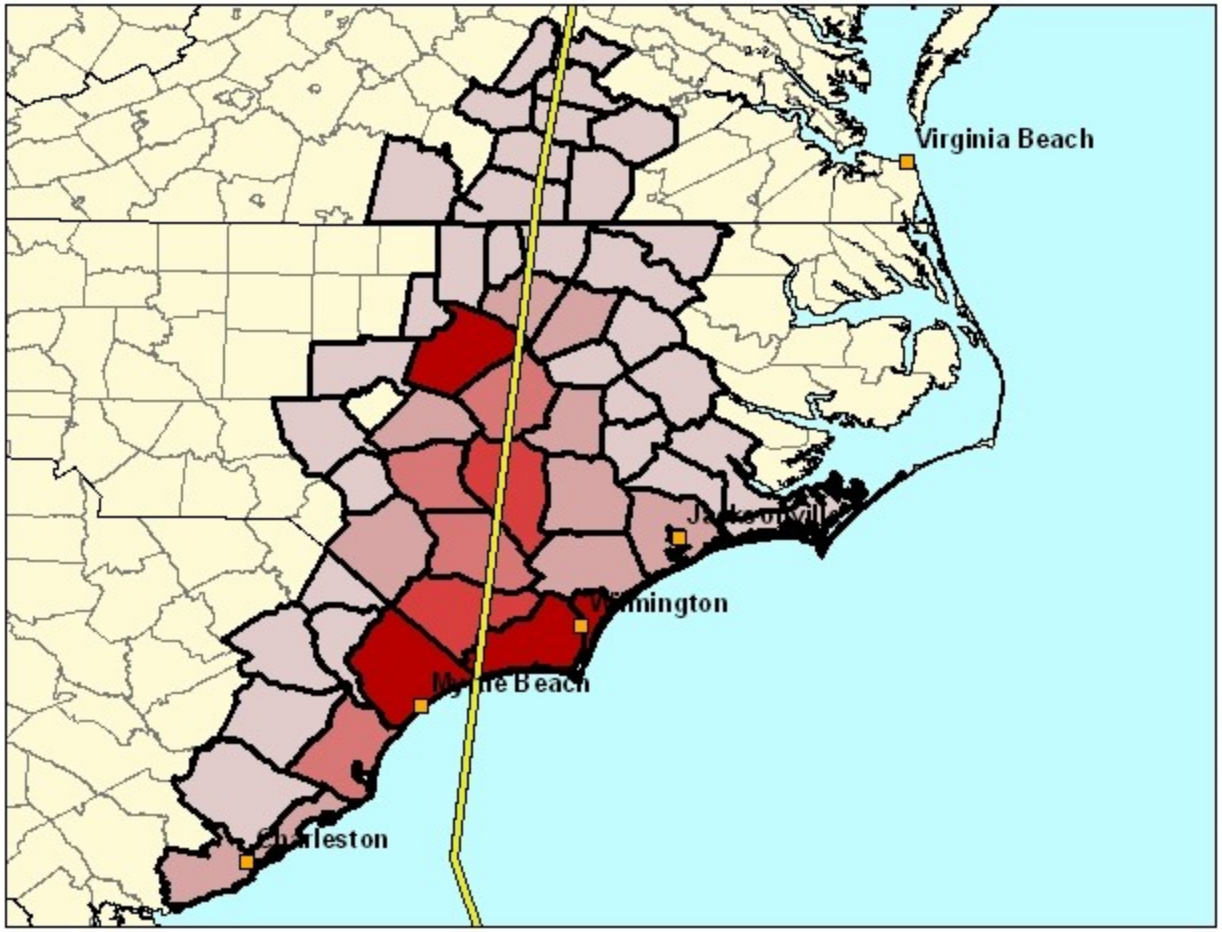
US Army Corps of Engineers

Hurricane Hazel 1954 Debris Model

Landfall Plus About 12 Hours

For Official Use Only!



Post Landfall Debris Model Results

North Carolina - 8,054,000 Yards
South Carolina - 3,249,000 Yards
Virginia - 123,000 Yards

Model results per County on following page

This model is based on a Category 3 storm making landfall near Wilmington, NC.

Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 3 storm making landfall near Wilmington, NC. These projections are based on information from the NHC (1130 EDT 09/16/2007) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hazel 1954 Debris Model	
Generated By: Siemsen, LRL 1200 EDT 09/16/2007	
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US Army Corps of Engineers

Hurricane Hazel 1954 Debris Model

Landfall Plus About 12 Hours

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State	Yards per State	County	Yards per County
North Carolina		Bladen	372,000
		Brunswick	1,683,000
		Carteret	3,000
		Chatham	< 1,000
		Columbus	661,000
		Craven	< 1,000
		Cumberland	480,000
		Duplin	135,000
		Durham	13,000
		Edgecombe	30,000
		Franklin	115,000
		Granville	45,000
		Greene	19,000
		Halifax	15,000
		Harnett	154,000
		Hoke	19,000
		Johnston	383,000
		Jones	12,000
		Lenoir	70,000
		Moore	< 1,000
		Nash	125,000
		New Hanover	1,123,000
		Northampton	2,000
		Onslow	170,000
		Pender	241,000
		Pitt	3,000
		Robeson	206,000
		Sampson	501,000
		Vance	52,000
		Wake	1,088,000
		Warren	30,000
		Wayne	206,000
(continued)		Wilson	98,000
North Carolina	8,054,000		
South Carolina		Berkeley	13,000
		Charleston	154,000
		Dillon	22,000
		Florence	13,000
		Georgetown	304,000
		Horry	2,669,000
		Marion	47,000
		Williamsburg	27,000
South Carolina	3,249,000		
Virginia		Amelia	12,000
		Brunswick	11,000
		Cumberland	5,000
		Dinwiddie	< 1,000
		Halifax	< 1,000
		Lunenburg	20,000
		Mecklenburg	41,000
		Nottoway	20,000
		Powhatan	5,000
		Prince Edward	9,000
Virginia	123,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Hurricane Hazel 1954 Debris Model

Generated By:
Siemsen, LRL 1200 EDT 09/16/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hazel 1954 Population Model

Landfall Plus About 12 Hours

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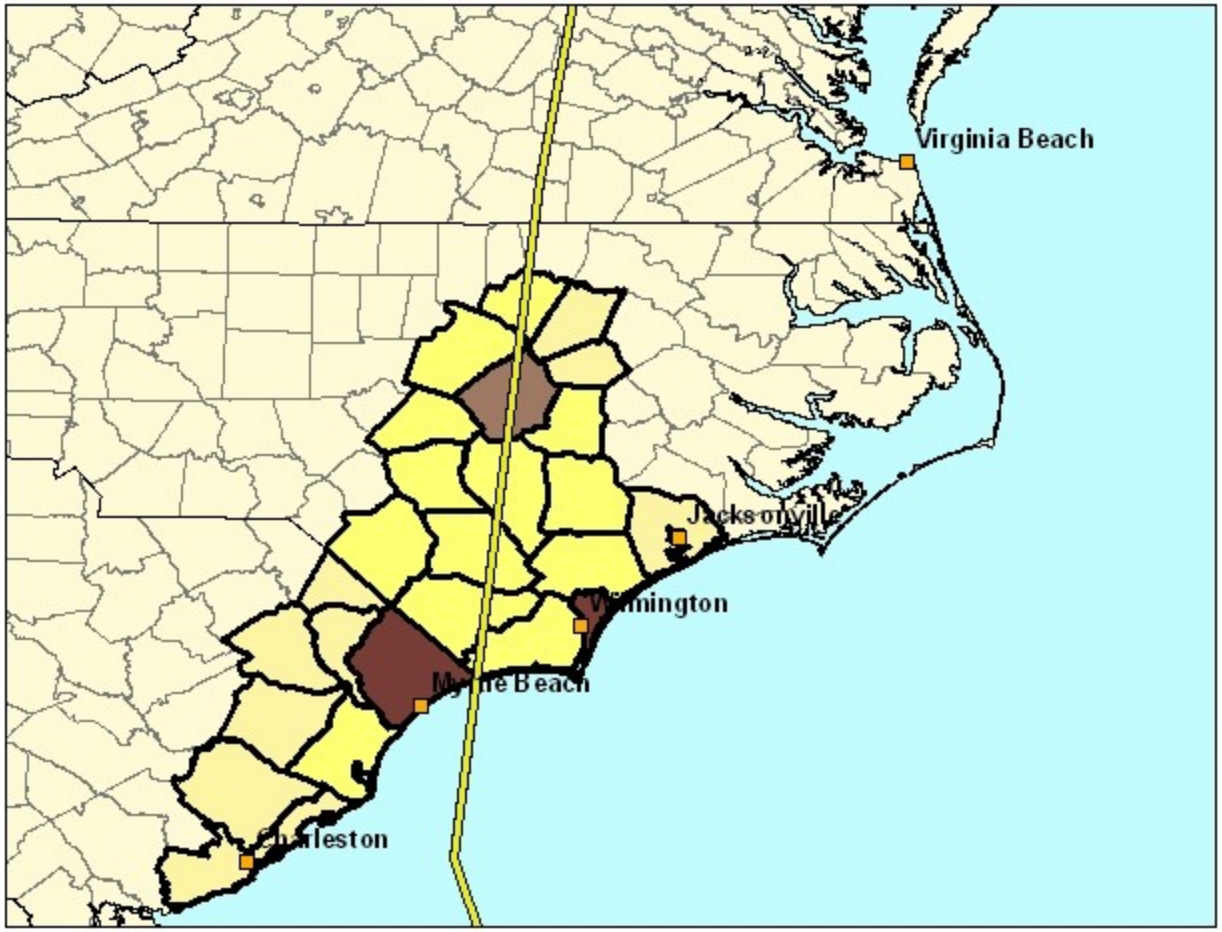

Post Landfall Population Model Results

North Carolina - 1,051,000
South Carolina - 298,000

Model results per County on following page

This model is based on a Category 3 storm making landfall near Wilmington, NC.

Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 3 storm making landfall near Wilmington, NC. These projections are based on information from the NHC (1130 EDT 09/16/2007) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hazel 1954 Population Model	
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US Army Corps of Engineers

Hurricane Hazel 1954 Population Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Population per State	County	Population per County
North Carolina		Bladen	33,000
		Brunswick	95,000
		Columbus	55,000
		Cumberland	89,000
		Duplin	42,000
		Franklin	38,000
		Harnett	33,000
		Johnston	147,000
		Nash	13,000
		New Hanover	183,000
		Onslow	4,000
		Pender	49,000
		Robeson	52,000
		Sampson	64,000
		Wake	81,000
		Wayne	66,000
		Wilson	7,000
North Carolina	1,051,000		
South Carolina		Berkeley	< 1,000
		Charleston	3,000
		Dillon	< 1,000
		Florence	< 1,000
		Georgetown	53,000
		Horry	238,000
		Marion	4,000
		Williamsburg	< 1,000
South Carolina	298,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hazel 1954 Population Model

Generated By:
Siemsen, LRL 1200 EDT 09/16/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hazel 1954 Households Model

Landfall Plus About **12** Hours

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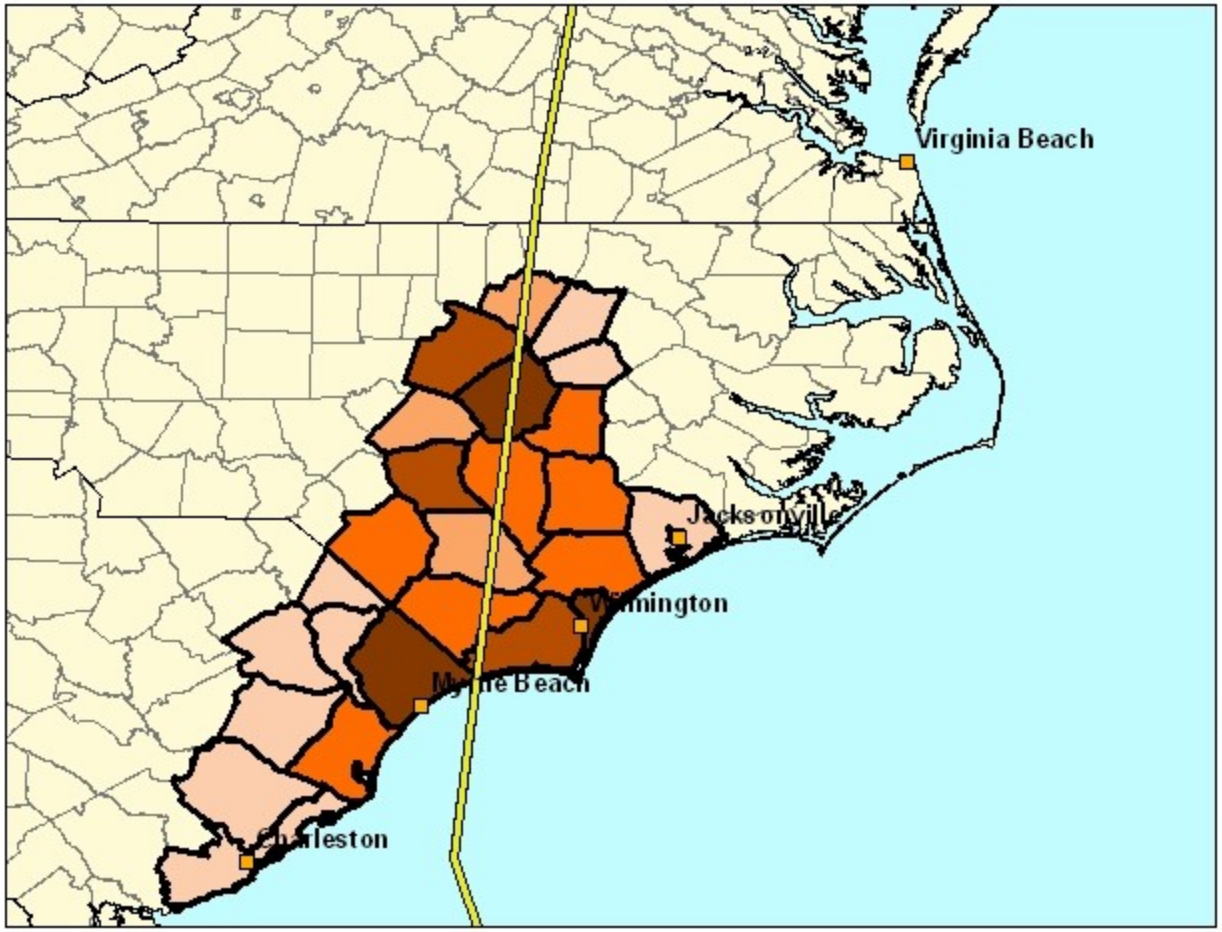

Post Landfall Households Model Results

North Carolina - 416,000
South Carolina - 122,000

Model results per County on following page

This model is based on a Category 3 storm making landfall near Wilmington, NC.

Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 3 storm making landfall near Wilmington, NC. These projections are based on information from the NHC (1130 EDT 09/16/2007) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2006 values).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hazel 1954 Households Model	
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US Army Corps of Engineers

Hurricane Hazel 1954 Households Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Households per State	County	Households per County
North Carolina		Bladen	14,000
		Brunswick	40,000
		Columbus	22,000
		Cumberland	34,000
		Duplin	16,000
		Franklin	14,000
		Harnett	13,000
		Johnston	57,000
		Nash	5,000
		New Hanover	78,000
		Onslow	2,000
		Pender	19,000
		Robeson	20,000
		Sampson	24,000
		Wake	30,000
		Wayne	25,000
		Wilson	3,000
North Carolina	416,000		
South Carolina		Berkeley	< 1,000
		Charleston	< 1,000
		Dillon	< 1,000
		Florence	< 1,000
		Georgetown	21,000
		Horry	99,000
		Marion	2,000
		Williamsburg	< 1,000
South Carolina	122,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2006 values.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Hazel 1954 Households Model

Generated By:
Siemsen, LRL 1200 EDT 09/16/2007

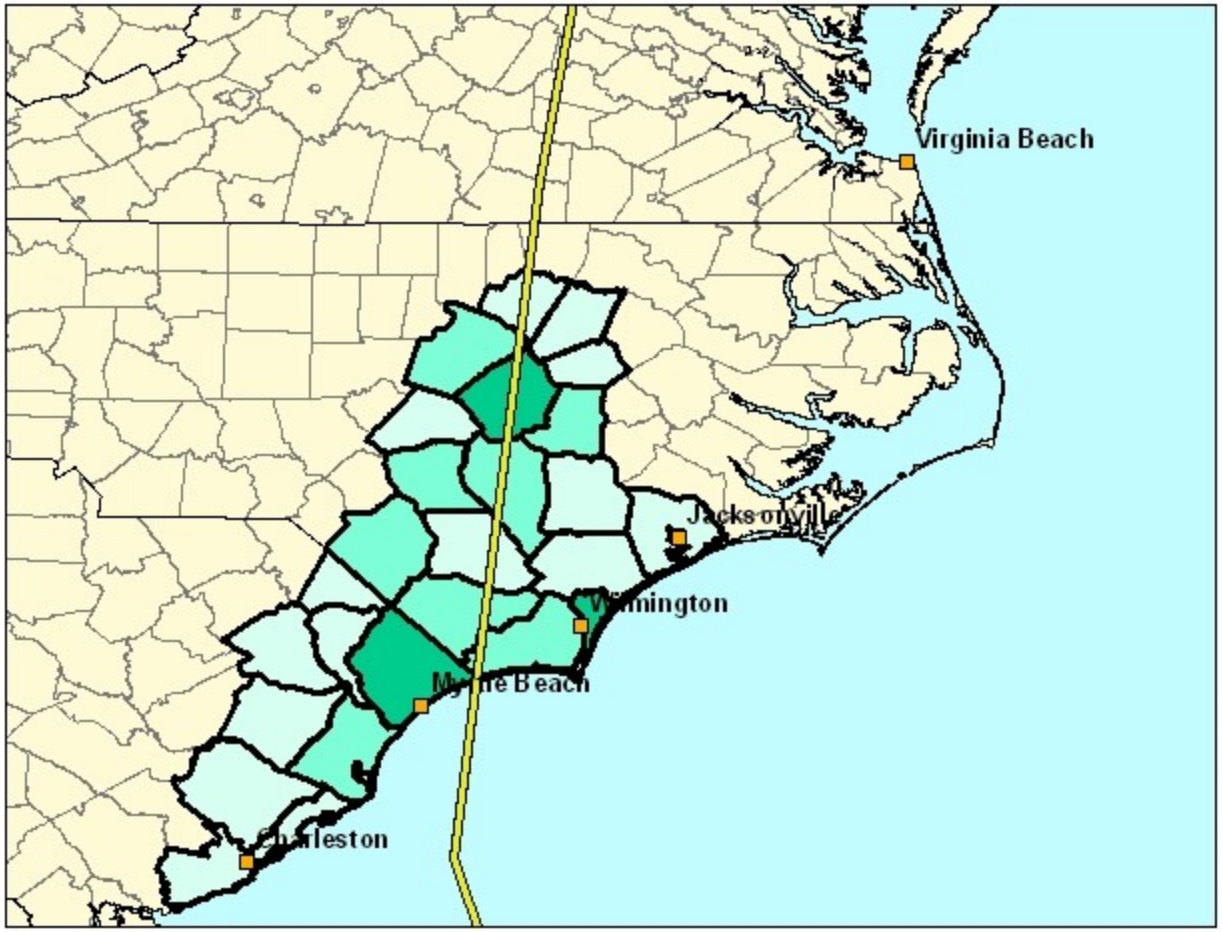
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hazel 1954 Commodities Model

Landfall Plus About 12 Hours

For Official Use Only!



Post Landfall Ice/Water Model Results

Day One / Day Two / Day Three
NC – 23/46/93 Truckloads
SC – 8/15/30 Truckloads

Model results per County on following page

This model is based on a Category 3 storm making landfall near Wilmington, NC.

Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 3 storm making landfall near Wilmington, NC. These projections are based on information from the NHC ***(1130 EDT 09/16/2007)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents single day needs with full distribution system in place and operating.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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US Army Corps of Engineers

Hurricane Hazel 1954 Commodities Model

Landfall Plus About 12 Hours

For Official Use Only!

State	Truckloads per State	County	Truckloads per County
North Carolina		Bladen	3
		Brunswick	8
		Columbus	5
		Cumberland	8
		Duplin	4
		Franklin	3
		Harnett	3
		Johnston	12
		Nash	2
		New Hanover	15
		Onslow	1
		Pender	4
		Robeson	5
		Sampson	6
		Wake	7
		Wayne	6
		Wilson	1
North Carolina	93		
South Carolina		Berkeley	1
		Charleston	1
		Dillon	1
		Florence	1
		Georgetown	5
		Horry	19
		Marion	1
		Williamsburg	1
South Carolina	30		

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested needs based on phased deployment of a commodities distribution system.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Hurricane Hazel 1954 Commodities Model

Generated By:
Siemsen, LRL 1200 EDT 09/16/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hazel 1954 Temp Housing Model

Landfall Plus About 12 Hours

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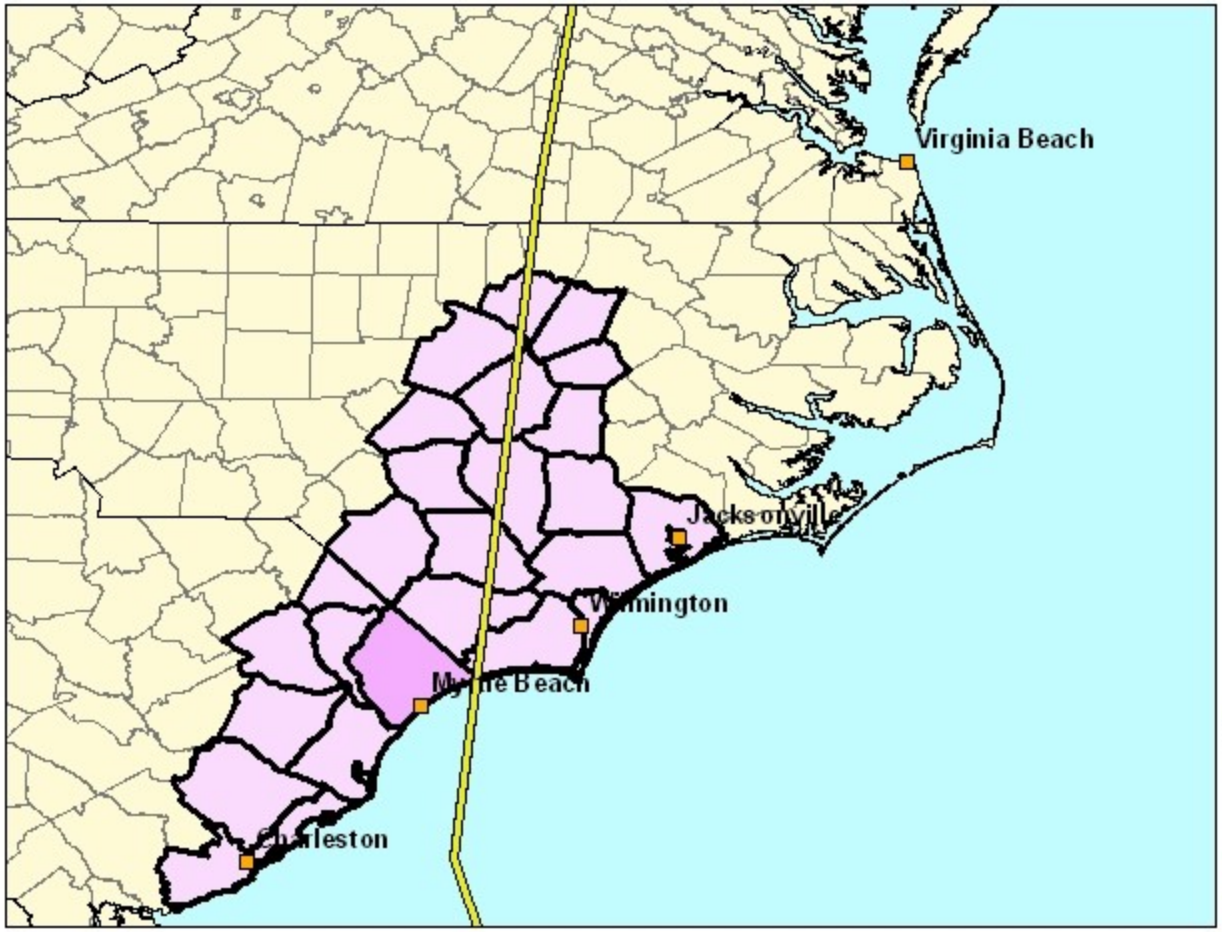

Post Landfall Temporary Housing Model Results

North Carolina - 7,700
South Carolina - 3,400

Model results per County on following page

This model is based on a Category 3 storm making landfall near Wilmington, NC.

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 3 storm making landfall near Wilmington, NC. These projections are based on information from the NHC (1130 EDT 09/16/2007) forecast. Temporary housing is based on 1% in CAT 1, 3% in CAT 2 and 5% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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Sources: HURREVAC LRL-DEBRIS	Page 9 of 12

US Army Corps of Engineers

Hurricane Hazel 1954 Temp Housing Model

Landfall Plus About 12 Hours

For Official Use Only!

State	House Units per State	County	House Units per County
North Carolina		Bladen	400
		Brunswick	1,700
		Columbus	700
		Cumberland	400
		Duplin	200
		Franklin	200
		Harnett	200
		Johnston	600
		Nash	< 100
		New Hanover	1,500
		Onslow	< 100
		Pender	300
		Robeson	200
		Sampson	700
		Wake	300
		Wayne	300
		Wilson	< 100
North Carolina	7,700		
South Carolina		Berkeley	< 100
		Charleston	< 100
		Dillon	< 100
		Florence	< 100
		Georgetown	400
		Horry	3,000
		Marion	< 100
		Williamsburg	< 100
South Carolina	3,400		

Temporary housing is based on 1% in CAT 1, 3% in CAT 2 and 5% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil
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Hurricane Hazel 1954 Housing Model

Generated By:
Siemsen, LRL 1200 EDT 09/16/2007

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Hazel 1954 Temp Roofing Model

Landfall Plus About 12 Hours

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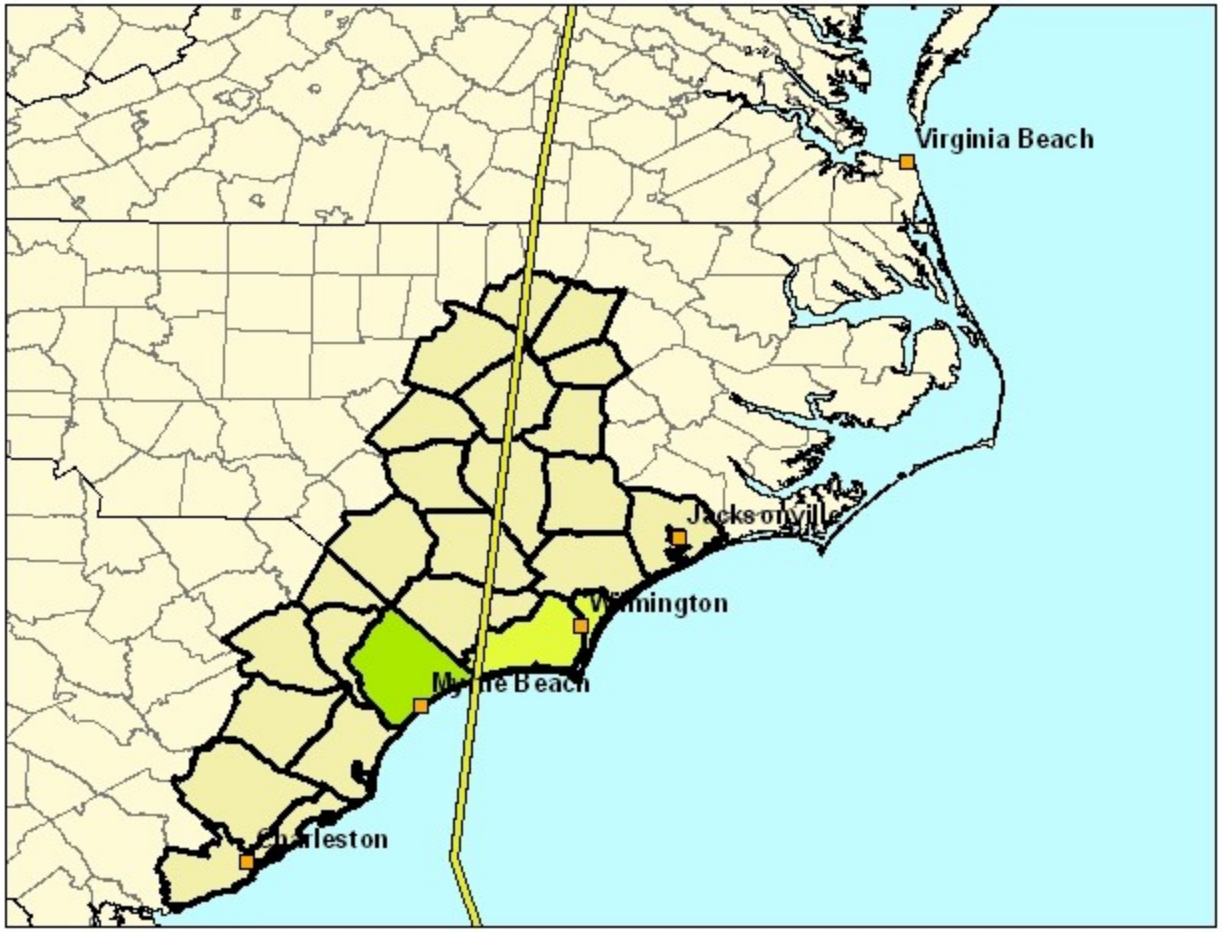

Post Landfall Temporary Roofing Model Results

North Carolina - 13,400
South Carolina - 5,600

Model results per County on following page

This model is based on a Category 3 storm making landfall near Wilmington, NC.

Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 3 storm making landfall near Wilmington, NC. These projections are based on information from the NHC (1130 EDT 09/16/2007) forecast. Temporary roofing is based on 2% in CAT 1, 5% in CAT 2 and 8% in CAT 3.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

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US Army Corps of Engineers

Hurricane Hazel 1954 Temp Roofing Model

Landfall Plus About 12 Hours

For Official Use Only!

State	House Units per State	County	House Units per County
North Carolina		Bladen	700
		Brunswick	2,700
		Columbus	1,200
		Cumberland	800
		Duplin	400
		Franklin	300
		Harnett	300
		Johnston	1,200
		Nash	< 100
		New Hanover	2,600
		Onslow	< 100
		Pender	600
		Robeson	400
		Sampson	1,100
		Wake	600
		Wayne	500
		Wilson	< 100
North Carolina	13,400		
South Carolina		Berkeley	< 100
		Charleston	< 100
		Dillon	< 100
		Florence	< 100
		Georgetown	700
		Horry	4,900
		Marion	< 100
		Williamsburg	< 100
South Carolina	5,600		

Temporary roofing is based on 2% in CAT 1, 5% in CAT 2 and 8% in CAT 3.

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Hurricane Hazel 1954 Roofing Model

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